

Message

---

**From:** Hoyer, Marion [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8DCDB076983049369A80F430A9F1D067-HOYER, MARION]  
**Sent:** 4/29/2019 12:16:37 AM  
**To:** Fanick, Robert [robert.fanick@swri.org]  
**CC:** Laroo, Chris [laroo.chris@epa.gov]  
**Subject:** RE: Ethylene oxide

We are going to need detection limits probably in the ppt but at least in the single ppb. The cancer risk for this compound is extremely low (one in a thousand cancer risk at lifetime exposure of 0.02 ug/m3) and background ambient levels are currently 0.1-0.3 ug/m3. We need to figure out if mobile sources are contributing to that background and to know for sure, we'll have to have extremely low d.l.s

We might want to wait to discuss further, unless you have other clients who will need this analytical capability. We should be getting some initial test results from our research lab in May (the analysis lab we are using has a dl in the ppb range). If we get a positive result, then we will need to put tremendous resources into this.

Our ORD has some researchers looking into methods to get lower d.l.s for this compound, so before you invest much in this we should make sure all the right people are talking to minimize duplication of effort or at least build on each other's knowledge.

Thanks again for your continued interest in helping on this issue Robert.

---

**From:** Fanick, Robert <robert.fanick@swri.org>  
**Sent:** Saturday, April 27, 2019 12:56 PM  
**To:** Hoyer, Marion <hoyer.marion@epa.gov>  
**Cc:** Laroo, Chris <laroo.chris@epa.gov>  
**Subject:** RE: Ethylene oxide

We are currently working on it, but we don't have a calibration standard yet. I suspect it will be less than 10 ppm, but it could be as low as 1 ppm. If lower detection limits are required, then we would have to investigate a wet chemistry method to concentrate the sample.

---

**From:** Hoyer, Marion [mailto:hoyer.marion@epa.gov]  
**Sent:** Saturday, April 27, 2019 6:43 AM  
**Ex. 6 Personal Privacy (PP)**  
**Cc:** Laroo, Chris  
**Subject:** RE: Ethylene oxide

**Ex. 6 Personal Privacy (PP)** Do you know what your detection limit in a source sample would be (approximately, within an order of magnitude)?

---

**From:** Fanick, Robert <robert.fanick@swri.org>  
**Sent:** Friday, April 26, 2019 9:38 AM  
**To:** Hoyer, Marion <hoyer.marion@epa.gov>  
**Cc:** Laroo, Chris <laroo.chris@epa.gov>  
**Subject:** RE: Ethylene oxide

Dear Chris,

I have been playing e-mail tag with Marion, and she suggested that I get in touch with you regarding measuring ethylene oxide. I think we have a way of doing it. If you are free to discuss this issue, my contact information is below.

E. Robert Fanick  
Principal Scientist - Emissions Chemistry Section  
Diesel Engines and Emissions Research & Development Department  
Powertrain Engineering Division  
Office of Automotive Engineering  
Southwest Research Institute  
6220 Culebra  
San Antonio, TX 78238

Work - (210) 522-2653  
Cell - (210) 467-8964  
fax (210) 522-3950

---

**From:** Hoyer, Marion [<mailto:hoyer.marion@epa.gov>]  
**Sent:** Thursday, April 25, 2019 5:08 PM  
**To:** Fanick, Robert  
**Cc:** Laroo, Chris  
**Subject:** RE: Ethylene oxide

Hi Robert,  
Thank you for getting in touch on this. Yes, I do want to discuss ethylene oxide measurement with you. We are waiting on some internal EPA initial results to help us gauge the urgency on this, but it would be good to talk at some point. Chris Laroo (cc'd here) is also aware of the issues and if you have an easier time connecting with him he can tell you the lay of the land with our interest in understanding the potential for ethylene oxide from mobile sources. It will be into mid-May before I will be able to contact you.  
I sincerely appreciate you keeping in touch on this.  
Marion

---

**From:** Fanick, Robert <[robert.fanick@swri.org](mailto:robert.fanick@swri.org)>  
**Sent:** Thursday, April 25, 2019 3:44 PM  
**To:** Hoyer, Marion <[hoyer.marion@epa.gov](mailto:hoyer.marion@epa.gov)>  
**Subject:** RE: Ethylene oxide

Several weeks have past, and I was wondering if there is still an issue with measuring ethylene oxide. I would be happy to discuss this topic with you. I can be reached at the numbers below.

E. Robert Fanick  
Principal Scientist - Emissions Chemistry Section  
Diesel Engines and Emissions Research & Development Department  
Powertrain Engineering Division  
Office of Automotive Engineering  
Southwest Research Institute  
6220 Culebra  
San Antonio, TX 78238

Work - (210) 522-2653  
Cell - (210) 467-8964  
fax (210) 522-3950

---

**From:** Hoyer, Marion [mailto:hoyer.marion@epa.gov]  
**Sent:** Wednesday, April 10, 2019 7:09 AM  
**To:** Fanick, Robert  
**Subject:** RE: Ethylene oxide

Hi Robert,  
 I'm sorry things became really crunched as I'm trying to get out of the office. Can we talk early next week?  
 Marion

---

**From:** Fanick, Robert <robert.fanick@swri.org>  
**Sent:** Tuesday, April 09, 2019 9:20 AM  
**To:** Hoyer, Marion <hoyer.marion@epa.gov>  
**Subject:** RE: Ethylene oxide

I am in Detroit this week for the SAE meeting. If you are available before you leave, please let me know.

---

**From:** Hoyer, Marion [mailto:hoyer.marion@epa.gov]  
**Sent:** Friday, April 05, 2019 4:17 PM  
**To:** Merritt, Patrick M.  
**Cc:** Geidosch, Justine; Laroo, Chris; Cullen, Angela; Cook, Rich; Nelson, Brian; Fanick, Robert; Kroll, Svitlana; Wright, Nolan T.  
**Subject:** RE: Ethylene oxide

Hi Patrick,

Thanks for much for getting in touch on this and THANK YOU Robert for giving me a call the other day, I apologize I haven't been able to return your call, although I just left you a long message on your work phone to provide some background on our interest.

I think it would be best if we could set up a call with Ex. 6 Personal Privacy (PP) and Justine, Chris and Angela on our side (cc'd here). If we can, Rich and I would like to participate, but I'm gone Wed-Fri next week so don't wait for me.

Let us know when you are available.

Thanks much,  
 Marion

---

**From:** Merritt, Patrick M. <patrick.merritt@swri.org>  
**Sent:** Thursday, April 04, 2019 9:03 AM  
**To:** Hoyer, Marion <hoyer.marion@epa.gov>  
**Cc:** Geidosch, Justine <Geidosch.Justine@epa.gov>; Laroo, Chris <laroo.chris@epa.gov>; Cullen, Angela <cullen.angela@epa.gov>; Cook, Rich <Cook.Rich@epa.gov>; Nelson, Brian <nelson@epa.gov>; Ex. 6 Personal Privacy (PP) Fanick, Robert <robert.fanick@swri.org>; Kroll, Svitlana <svitlana.kroll@swri.org>; Wright, Nolan T. <nolan.wright@swri.org>  
**Subject:** RE: Ethylene oxide

Hello Marion,

Sorry for the delayed response. I contacted our chemists (E. Robert Fanick, manager; Nolan Wright, asst. manager; and Svitlana Kroll, principal scientist) and they are interested in helping you. Svitlana has had experience with ethylene oxide but not in exhaust. It may be something that needs some development but they would like to look at this with you.

Svitlana and Robert are away at a conference, but I've asked Robert to call you. Alternatively, you can e-mail them. And of course, I'm happy to coordinate and help where I can.

Thank you!

With best regards,  
Patrick

Patrick Merritt, PMP | Program Manager | Powertrain Engineering Division  
Southwest Research Institute | 6220 Culebra Road, San Antonio, TX 78238  
[patrick.merritt@swri.org](mailto:patrick.merritt@swri.org) | voice 210-522-5422 | mobile 210-845-3003



---

**From:** Hoyer, Marion <[hoyer.marion@epa.gov](mailto:hoyer.marion@epa.gov)>

**Sent:** Wednesday, April 3, 2019 9:21 AM

Ex. 6 Personal Privacy (PP)

**Cc:** Geidosch, Justine <[Geidosch.Justine@epa.gov](mailto:Geidosch.Justine@epa.gov)>; Laroo, Chris <[laroo.chris@epa.gov](mailto:laroo.chris@epa.gov)>; Cullen, Angela <[cullen.angela@epa.gov](mailto:cullen.angela@epa.gov)>; Cook, Rich <[Cook.Rich@epa.gov](mailto:Cook.Rich@epa.gov)>; Nelson, Brian <[nelson.brian@epa.gov](mailto:nelson.brian@epa.gov)>

**Subject:** Ethylene oxide

Hi Patrick,

I'm circling back with you to do some additional market research on ethylene oxide. Do you have time this week when we could talk with you and any of your chemists who you'd want to tap in order to discuss sample collection and analysis for ethylene oxide from mobile sources?

Thanks,  
Marion

CAUTION: This email originated from outside SwRI and it may contain attachments and/or links. Do not open attachments or click on links unless you recognize the sender and know the content is safe.